

CLAIMS

Claimed is:

1. A functional plane beam for a magnetically levitated travelway, wherein the one travelway defining functional plane beam (1) possesses a slide surface (2), a lateral guide flange (4), a stator beam (9, 10, 10a) which carries a stator packet (11) consisting of vertical and travel directed stator lamellas (12) and a mounting surface (5) serving for coupling onto a main beam (7), therein characterized, in that the stator packet (11) has a boring (15) penetrating the said lamellas (12) essentially perpendicularly to their vertical alignment and which stator packet (11) is bound together by a penetrating bolt (16, 38) on the stator beam (9, 10, 10a).

2. A functional plane beam in accord with claim 1, wherein the stator packet (11) is pressed together with a specific clamping pressure between two clamping plates (25), the plates of which run essentially parallel to the stator lamellas (12) and wherein the bolt (16, 38) likewise penetrates the clamping plates (25).

3. A functional plane beam in accord with claim 2, wherein the clamping force is transferred to the clamping plates (25) by means of clamping elements (26) placed on the bolt (16).

4. A functional plane beam in accord with claim 2 or 3, wherein the clamping force is directed by a sleeve (37) running coaxially to the bolt (16, 38), which said sleeve penetrates the stator packet (11) and the clamping plates (25).

5. A functional plane beam in accord with claim 4, wherein the sleeve (37) is welded with a clamping plate (25).

6. A functional plane beam in accord with one of the foregoing claims, wherein the bolt (16, 38), during the time of assembly, forms a compression bonding with the sleeve (37), with the stator packet (11) and with the clamping plates (25).

7. A functional plane beam in accord with one of the foregoing claims, wherein the stator packet (11) in the area of the projections (28) between the recesses (13) for the stator windings (14) possesses additional clamping elements.

8. A functional plane beam in accord with claim 7, wherein the clamping elements encompass the projections (28) in a cliplike manner and/or bind onto the stator lamellas (12) and, if required, also onto the clamping plates (25) in the area of the penetration of the tie-bars (27).

9. A functional plane beam in accord with one of the foregoing claims, wherein the stator beam (9, 10, 10a) is constructed as a U-shaped structural member, and the bolt (16, 38) penetrates the two arms (10) thereof.

10. A functional plane beam in accord with claim 9, wherein the bolt (16, 38) forms a press-fit with the stator beam (9, 10, 10a).

11. A functional plane beam in accord with claim 9, wherein the bolt (16, 38) engages itself in a slotlike excision in the U-shaped structural member (10, 10a).

12. A functional plane beam in accord with one of the claims 9 to 11, wherein the bolt (16, 38) is bound to the functional plane beam by an additional suspension (30, 31a, 31b, 31c, 32, 33 34).

13. A functional plane beam in accord with claim 12, wherein the additional suspension (30, 31a, 31b, 31c, 32, 33 34) is so designed, that it secures the bolt (16, 38) in its inserted position.

14. A functional plane beam in accord with one of the foregoing claims, wherein the functional plane beam (1) is constructed from essentially two rolled structural shapes (35, 36), in particular incorporating a structural angle member (35) which incorporates the slide surface (2) and the lateral guide flange (4) as well as a T-shaped member 36, which carries the mounting surface (5) and the stator beam (9, 10).

15. A functional plane beam in accord with one of the foregoing claims, wherein is constructed in one end face of a stator packet (11), a horizontal groove (39) running transverse to the direction of travel and in the opposite end face thereof, a horizontal spring (40) positioned transverse to the direction of travel, so that, with the sequentially placed stator packets (11) a spring (40) in the said groove (39) engages the respectively adjacent stator packet (11).

16. A functional plane beam in accord with claim 15, wherein, between the groove (39) and the spring (40) is a separating distance of width b, width of said distance being between 0.5 and 10 mm.